

REMARKS

The Examiner is again thanked for her careful review of the present patent application. Nonetheless, it is respectfully submitted that the Examiner has completely misconstrued the teachings of U.S. patent 6,190,591, the principal reference cited in the Office Action. The '591 patent is not at all germane to the present application, but to the contrary its teachings are quite inapposite.

The '591 patent is directed towards the encapsulation and embedding of water soluble materials. The starch that is used in connection with the encapsulation is a water insoluble starch. Water insolubility is desirable in the context of encapsulation. The '591 patent teaches as much; for instance, at column 2, line 59, the reference teaches:

Increased solubility of the extrude starch in aqueous systems decreases the stability of the product against moisture and subsequently diminishes or shortens the protection and controlled release of the embedded or encapsulated substances.

The Office action points to certain teachings in the reference that the starch should be pre-gelatinized and that these teachings are relevant to solubility. Applicants respectfully disagree. "Pre-gelatinized" and "soluble" are not at all synonymous. A pre-gelatinized starch is a starch for which the crystalline structure has been caused to be eliminated (childrens' glue is an example of gelatinized starch). Solubility (in the present context) is a distinct property.

The Rose reference purports to a hydroxyalkyl starch, but there is no teaching or suggestion in the '591 patent to employ the starch of Rose in the '591 patent at the example at column 22. Nor is there any teaching in either reference that such would result in a soluble starch. Indeed, given that the stated goal of the '591 patent is to avoid solubility, the combination of references cannot be seen to suggest that a soluble starch can or should be prepared. To the contrary, the skilled artisan would find it undesirable to employ a soluble starch in connection with the '591 patent at all, and moreover, the skilled artisan would be led to expect that any example replicated in the '591 patent would result in an insoluble starch.

The Office Action cites in column 22, lines 49-67 of the '591 patent for the claimed step of "controlling the rotational speed of such at to impart a specific mechanical energy to said starch sufficient to result in a soluble extruded starch product. . ." Far to the contrary, the cited passage says nothing at all about creating a soluble starch, nor that the extruder can be used to prepare same. The teachings of the reference are of an insoluble starch, not of controlling the speed of an extruder to prepare a soluble starch.

With respect to claim 33, this claim is likewise not suggested by the combination of references. This claim, and the claims that depend therefrom are patentable over the cited art.

Simply put, the '591 patent teaches away from soluble starches, and the combination with the Rose patent is not appropriate and does not lead to the present invention. In light of the foregoing, the Examiner is respectfully requested to allow the present patent application.

Respectfully submitted



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